

Setting Up the Server

1. Since I don't have the image locally it still had to download it

```
PS C:\Users\JervinJosh> docker run --rm -d --name apache -p 80:80 httpd:2.4
Unable to find image 'httpd:2.4' locally
2.4: Pulling from library/httpd
69692152171a: Pull complete
7284b4e0cc7b: Pull complete
3678b2d55ccd: Pull complete
aeb67982a725: Pull complete
06954f8169fd: Pull complete
Digest: sha256:48bae0ac5d0d75168f1c1282c0eb21b43302cb1b5c5dc9fa3b4a758ccfb36fe9
Status: Downloaded newer image for httpd:2.4
5d208f9eea06aa248b88ab2129ceb9a6034e7933646c5c08899b797323fe60db
```

2. Status of index.html

```
PS C:\Users\JervinJosh> curl localhost

StatusCode      : 200
StatusDescription : OK
Content          : <html><body><h1>It works!</h1></body></html>

RawContent      : HTTP/1.1 200 OK
                  Keep-Alive: timeout=5, max=100
                  Connection: Keep-Alive
                  Accept-Ranges: bytes
                  Content-Length: 45
                  Content-Type: text/html
                  Date: Fri, 11 Jun 2021 03:17:55 GMT
                  ETag: "2d-432a5e4a73a80..."
Forms           : {}
Headers         : {[Keep-Alive, timeout=5, max=100], [Connection, Keep-Alive], [Accept-Ranges, bytes],
                  [Content-Length, 45]...}
Images          : {}
InputFields     : {}
Links           : {}
ParsedHtml      : mshtml.HTMLDocumentClass
RawContentLength : 45
```

3. Since i was not working in the same directory as index.html i needed to change directories before proceeding to the next step

```

PS C:\Users\JervinJosh> cd Documents\Github\ME8_Containerization_and_Docker
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker> cd 5-volumes
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker cp index.html apache:/usr/local/apache2/htdocs/
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> curl localhost

StatusCode      : 200
StatusDescription : OK
Content         : <html><body><h1>It works in Docker!</h1></body></html>

RawContent      : HTTP/1.1 200 OK
                  Keep-Alive: timeout=5, max=100
                  Connection: Keep-Alive
                  Accept-Ranges: bytes
                  Content-Length: 56
                  Content-Type: text/html
                  Date: Fri, 11 Jun 2021 08:31:31 GMT
                  ETag: "38-5c4574e839b80..."
Forms           : {}
Headers         : {[Keep-Alive, timeout=5, max=100], [Connection, Keep-Alive], [Accept-Ranges, bytes],
                  [Content-Length, 56]...}
Images          : {}
InputFields     : {}
Links           : {}
ParsedHtml      : mshtml.HTMLDocumentClass
RawContentLength : 56

```

Managing Volumes

1. Checking volumes

```

PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume ls
DRIVER      VOLUME NAME

```

2. Creating volume

```

PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume create myvolume
myvolume
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume ls
DRIVER      VOLUME NAME
local       myvolume

```

3. Removing a volume

```

PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume rm myvolume
myvolume
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume ls
DRIVER      VOLUME NAME

```

Mounting Volumes on Containers

1. Creating volume

```

PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume create httpd_htdocs
httpd_htdocs

```

2. Re-running and re-copying index.html

```

PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local/apache2/htdocs/ httpd:2.4
bdadaa411e5cd9ff953622fa9ffcc5ed919c5a78302363f9957cc88c508ba9cf
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker cp index.html apache:/usr/local/apache2/htdocs/

```

```
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> curl localhost

StatusCode      : 200
StatusDescription : OK
Content         : <html><body><h1>It works in Docker!</h1></body></html>
```

3. Stopping/Deleting then Re-running

```
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker stop apache
apache
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker run --rm -d --name apache -p 80:80 -v httpd_htdocs:/usr/local/apache2/htdocs/ httpd:2.4
c9112ccd0c88a93229890bddcb2660f35484ab7adfa2eda8edbea70fb9396489
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> curl localhost

StatusCode      : 200
StatusDescription : OK
Content         : <html><body><h1>It works in Docker!</h1></body></html>
```

4. Removing a volume

```
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker volume rm httpd_htdocs
httpd_htdocs
```

Mounting host directories on containers

Added random strings to my index.html

```
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> docker run --rm -d --name apache -p 80:80 -v /c:/Users/JervinJosh/Documents/Github/ME8_Containerization_and_Docker/5-volumes:/usr/local/apache2/htdocs/ httpd:2.4
5c573ae71f76e98d4bf6048fa7f76fa1e01bc86f0c291522ce1e458dc7792cc
PS C:\Users\JervinJosh\Documents\Github\ME8_Containerization_and_Docker\5-volumes> curl localhost

StatusCode      : 200
StatusDescription : OK
Content         : <html><body><h1>It works in Docker!sdasdasdadac</h1></body></html>

RawContent      : HTTP/1.1 200 OK
                  Accept-Ranges: bytes
                  Content-Length: 67
                  Content-Type: text/html
                  Date: Fri, 11 Jun 2021 13:37:34 GMT
                  ETag: "43-5c47d98f208ff"
                  Last-Modified: Fri, 11 Jun 2021 13:36:39 GMT
                  Server:....
Forms           : {}
Headers         : [[Accept-Ranges, bytes], [Content-Length, 67], [Content-Type, text/html], [Date, Fri, 11 Jun 2021 13:37:34 GMT]...]
Images          : {}
InputFields     : {}
Links           : {}
ParsedHtml      : mshtml.HTMLDocumentClass
RawContentLength : 67
```